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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,294	06/21/2001	Seung-Ho Oh	10061-28US(PO2001-11US)	5733

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AKIN GUMP STRAUSS HAUER & FELD L.L.P.  
ONE COMMERCE SQUARE  
2005 MARKET STREET, SUITE 2200  
PHILADELPHIA, PA 19103-7013

EXAMINER

KIM, CHONG R

ART UNIT PAPER NUMBER

2623

DATE MAILED: 07/20/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/886,294

Applicant(s)

OH, SEUNG-HO

Examiner

Charles Kim

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters:

#### *Claim Objections*

The following quotations of 37 CFR § 1.75(a) and (d)(1) are the basis of objection:

- (a) The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.
- (d)(1) The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. (See § 1.58(a)).
2. Claims 1-12 are objected to under 37 CFR § 1.75 (a) and (d)(1) as failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention or discovery.

Referring to claim 1, the phrase “scanning window having the same size **with** a reference window” in lines 5-6 is grammatically incorrect. It appears that the applicant intended the phrase to read “scanning window having the same size as a reference window”. A similar objection is also applicable to claim 9. Appropriate corrections are required.

Referring to claim 1, the phrase “**the** constraint” in line 7 lacks antecedent basis. It appears that the applicant intended the phrase to read “a constraint”. A similar objection is also applicable to claim 9. Appropriate corrections are required.

Referring to claim 6, the phrase “subtracting the value of wx **form** the number of pixels” in line 9 is grammatically incorrect. It appears that the applicant intended the phrase to read “subtracting the value of wx from the number of pixels”. Appropriate correction is required.

Referring to claim 9, the phrase “the greatest WMC” in line 16 lacks antecedent basis. It appears that the applicant intended the phrase to read “the greatest WMC value”. Appropriate correction is required.

### *Reasons for Allowance*

3. The following is a statement of reasons for the indication of allowable subject matter: The essential difference from the prior art is calculating the window matching count (WMC) values of the matched scanning windows using the determined similarities of the matched scanning columns, and determining the stereo disparity based on the matched scanning window having the greatest WMC value. These features in combination with the other elements of the claim and the base claim are not disclosed or suggested by the prior art of record.

The Examiner notes that the recited  $S(x+i,y,d)$  in claim 11, and the recited  $S(x+wx,y,d)$  and  $S(x-1-wx,y,d)$  in claim 12 are defined as the similarity of the matching scanning columns, as disclosed on page 10 of the applicant's specification.

### *Conclusion*

4. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Melen U.S. Patent No. 6,674,892 discloses a method for determining stereo disparity by partitioning a pair of images into vertically striped regions, matching blocks within the vertically striped regions of one image with blocks within vertically striped regions of the other image, and determining a vertical shift based on the matching of the blocks.

b. Berestov et al. U.S. Patent No. 6,714,672 discloses a method for determining stereo disparity by creating search columns on a pair of images, performing matching on each pixel in the search column of one image with each pixel in the search column of the other image, and determining a vertical and horizontal shift based on the matched pixels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ck

July 1, 2004



AMELIA M. AU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600